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SUGGESTIONS FOR JUDGING TEXTILES

Too often color, design, and the passing fashion are the only considerations made when purchasing a textile fabric. The following are a few of the points that determine lasting satisfaction with such materials.

Kind and Quality of Fiber

The first consideration is whether the fiber in the fabric is that which is desired and for which the purchase price is paid. A cheap fiber is not necessarily a poor investment if the purchaser knows what she is getting, if it suits her purpose, and if the price is what it is worth.

Cotton may be chosen for its low cost, ease of laundering, coolness, and durability; mercerized cotton because it combines durability and beauty with low cost; linen for its absorptive properties, resistance to soil, beauty, and durability; wool for its warmth; silk for its great beauty and durability; and artificial silk, now being called rayon by a large group of manufacturers, for its lower cost and extreme luster.

Mixtures of fibers may be desirable in cases where wearing quality has not been too greatly sacrificed in order to lower cost. Mixtures of wool and cotton may launder better than wool alone although in some cases the difference in shrinkage of the two fibers is disastrous. It is better to test such union materials by washing or steaming a sample before the purchase is made.

Moreover, there are different grades of cotton, linen, and the other kinds of fibers. An exact study would compare structure, breaking strength, and many other characteristics of each sample, but length, which is an important factor, can be easily noted. The longer the fiber, the easier it is held in the yarn and the smoother and less easily soiled is the fabric woven from it.

Cotton fiber may be from 4/5 to 11/2 inches in length and is therefore a short fiber at best. For that reason cotton yarn is always rough and soils rather readily.

Flax fiber is naturally long, but much of the linen fabric on bargain counters has been made from the combings (tow) removed in the preparation of the good linen yarn. This tow linen produces a fabric that is much less durable and soils easier.

Wool fibers vary from one to eight inches in length. Regenerated wool is made from scraps from tailor shops, garment factories, and the like, and from old materials sold as rags. These are all properly disinfected, cleaned, torn apart, and respun. Such fiber is likely to be broken and shorter than new wool, although this is not necessarily the case.

Silk is ordinarily a long fiber, but as in the case of the other fibers, the short ones, twisted into spun silk, are used for cheaper fabrics.

Yarn

Fibers are twisted into yarns or threads out of which the fabric is woven. Much or little fiber may be put into a yarn. A heavy yarn of course has much more covering power and gives more material for the price. Also many or few twists may be put in a yarn. Up to a definite limit, the more twists there are, the stronger is the yarn; but, on the other hand, a very tightly twisted yarn is hard and unyielding and in the case of wool soon wears shiny.

Fabric

Good fiber and good yarn may be spoiled by poor construction of the fabric. The plain "over and under" weave of equal yarns is perhaps the most durable although some twills are very satisfactory. However, these are less artistic than many variations, and the manufacturer is often tempted to sacrifice durability to beauty or in some cases merely to fashion.

Pk

A few of the common weaknesses of fabrics due to construction are as follows: Very fine yarns are woven over very heavy ones and these soon wear through. Long yarns (floats) are passed over too many yarns and are easily caught and torn. Patterns made by bleaching out portions of a dark background often result in weakened places which quickly wear through. Designs produced by weaving in short lengths of yarn free at both ends soon cause the fabric to look shabby. A wash fabric too heavily sized becomes sleazy after laundering, and a silk too heavily sized or weighted with metallic compounds cracks and spots easily.

By making a few simple tests on the fiber, the yarn, and the fabric, the housekeeper can often safeguard herself in buying textiles.

Testing the Fiber

Ravel out a few yarns from the fabric, taking samples both from the warp and the filling and from stripes, checks, and different parts of the pattern. Untwist these yarns and observe and test the fibers singly or in bunches.

Cotton fibers appear short, dull, and fuzzy. Mercerized cotton is similar but more lustrous. Apply a lighted match to a yarn of each and observe that the burn quickly, with a yellow flame that flashes along and leaves a very small amount of gray ash.

Linen fibers are long, rather stiff, and lustrous. A linen yarn burns like that of cotton but leaves a more blunt end. Linen is often mixed with mercerized cotton and this adulteration is sometimes difficult to detect. A linen fabric appears cool to the touch, and a drop of moisture or ink spreads more rapidly on pure linen than on cotton. However, the latter is influenced so much by the sizing on the fabric that it is not a reliable test. If there is any doubt, the best method is to examine the fibers with a microscope as described in books on fiber structure.

Wool fibers are short and kinky, give a characteristic sensation when drawn between the teeth, smolder when ignited, leaving an irregular lump of ash, and giving off the odor of burning feathers. Wool Dissolves when boiled for 15 minutes in a solution containing one tablespoon of lye to a pint of water. Larger amounts of alkaline washing powder may be used instead of lye. This is an excellent way to detect fabrics made of both wool and cotton as the cotton will not disappear under such treatment.

Silk fibers are long, smooth, and straight, and have a bright luster. When ignited they burn quickly, give off an odor similar to that of burning wool, and form a hard round cinder. Heavily weighted silk will leave an ash the exact shape of the fiber or yarn, because only the silk burns off. Artificial silk is much more lustrous than real silk, is more stiff and harsh, and burns like cotton.

Testing the Yarn

Ravel out samples of yarn and break them. Note the relative strength. If artificial silk, dampen and notice the breaking strength. Some artificial silk is very much weakened by water. Note the amount of twist in the yarns.

Testing the Fabric

Finishing. Rub the fabric briskly between the hands. An excessive amount of starch and other stiffening agent will be removed. This will also remove surface designs put on with paste. In the case of wash fabric, launder a sample and observe the result. A very loose weave may be completely covered by heavy sizing. If a noncrushable fabric is desired, crush between the hands and note the result. Some silks water-spot very badly. The only way to test this is to sprinkle the sample with water, allow it to dry, and observe whether the sizing has deposited itself in rings.

Structure. Hold the fabric up to the light and observe the firmness. Pull the yarns apart with the finger nails. If they slip easily, the fabric will pull at the seams. Tear a sample. This gives an idea of the strength. Another method is to place the ends of the thumbs together, holding the material between them and the first finger, and pull first on the warp or lengthwise threads and then on filling or crosswise threads. Notice how the warp threads compare with the filling threads. A fine warp will not stand the strain from a heavy filling; therefore a fabric so woven is not strong. This is also true of those having a heavy cord beside a very fine thread as found in some dimities and muslins. Notice whether there are long "floats" on the surface or loose yarns which could be easily caught and torn. Study the method used in introducing the design and observe whether wear would easily remove the figures either because they are not firmly woven in or because they have been chemically applied in an undesirable manner.

Dyes . Dyes should be fast to the condition under which they are used. This may include one or more of the following: Fastness to light, washing, perspiration, bleaching, ironing, or steaming. Before purchasing, test a sample as nearly as possible under the conditions in which the fabric is to be used. Household methods of setting colors are useless and should not be attempted.